

INTRODUCTION TO THE CENTRAL, MESSAGE SWITCHING AUTOMATIC AN/TYC-39A

INTRODUCTION:

This practical exercise (PE) is divided into two parts. In Part One your learning objective is to locate and identify the components of the AN/TYC-39A. In Part Two you must correctly answer 14 out of 20 questions on the AN/TYC-39A within 45 minutes.

ITEMS YOU WILL NEED FOR THIS LESSON:

- a. AN/TYC-39A.
- b. TMs 11-5805-790-12-1 through 12-6.

THE LESSON STRATEGY:

Part One of the PE directs you to utilize the TMs and the AN/TYC-39A to identify the components of the AN/TYC-39A. In Part Two you are directed to answer 14 out of 20 questions in 45 minutes. The primary aids you will use are TMs 11-5805-790-12-1 through 12-6.

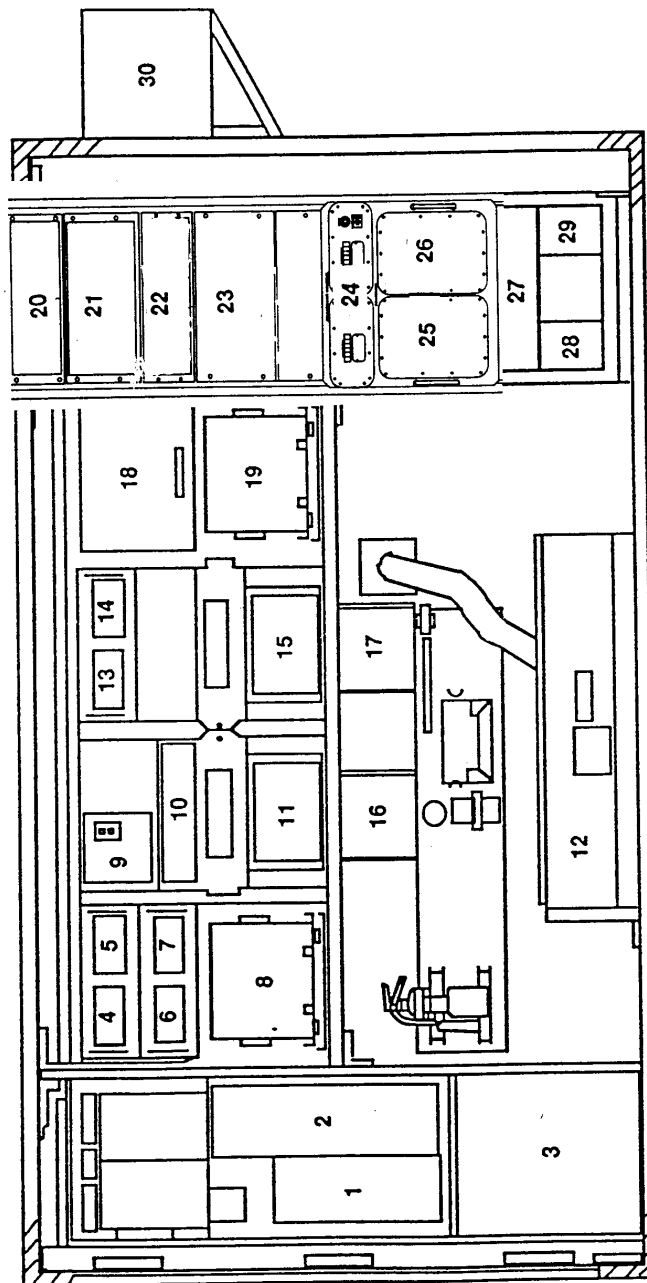
APPLICATION:

1. In Part One, use figures 1 and 2, the reference TMs, and the AN/TYC-39A to assist you in completing the underlined areas to identify and locate the components of the AN/TYC-39A.
2. Your instructor will initial your PE after you correctly locate and identify AN/TYC-39A components.
3. In Part Two, answer either by filling in the blanks or by drawing a circle around the correct answer.
4. If it is not clear what you are required to do, ask your instructor for clarification.
5. When you have completed the practical exercise, ask your instructor to grade it for you.

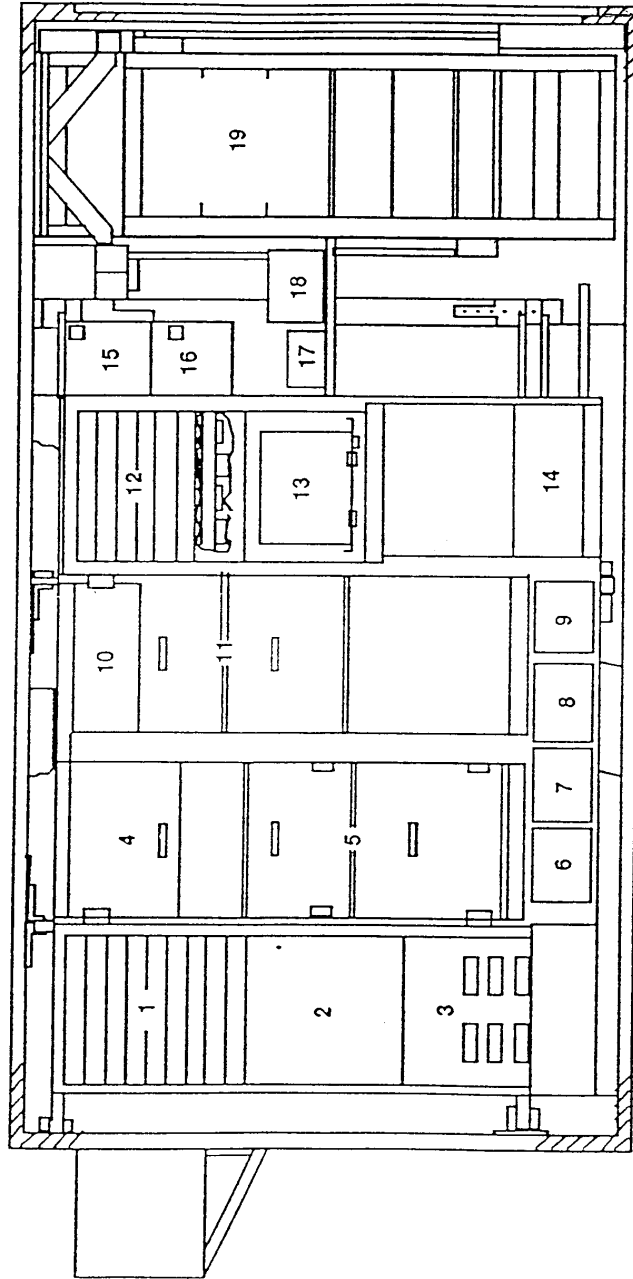
Whenever pronouns or other references denoting gender appear in this document, they are written to refer to either male or female unless otherwise indicated.

ROADSIDE VIEW

FIGURE 1



CURBSIDE VIEW
FIGURE 2



PART ONE:

Roadside view (figure 1).

ITEM #

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Curbside view (figure 2).

ITEM #

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8	_____
9	_____
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12	_____
13	_____
14	_____
15	_____
16	_____
17	_____
18	_____
19	_____

PART ONE COMPLETED INSTRUCTOR INITIALS _____

PART TWO:

FILL IN THE BLANK OR CIRCLE THE CORRECT ANSWER.

1. Name three other systems that the message switch interfaces.
 - a. _____
 - b. _____
 - c. _____
2. What is the maximum number of dedicated subscribers that an AN/TYC-39A message switch can support?
 - a. 38.
 - b. 48.
 - c. 58.
 - d. 68.
3. How many SDUs can be active in the system?
 - a. Two.
 - b. Four.
 - c. Six.
 - d. Eight.
4. What provides the primary operator/machine interface with the message processors (central processors)?
 - a. ILI.
 - b. LPU.
 - c. LTU.
 - d. VDT.

5. In what TM would you find preventative maintenance checks and services (PMCS)?
 - a. TM 11-5805-790-12-1.
 - b. TM 11-5805-790-12-3.
 - c. TM 11-5805-790-12-4.
 - d. TM 11-5805-790-12-6.
6. In what TM would you find the traffic printouts?
 - a. TM 11-5805-790-12-2.
 - b. TM 11-5805-790-12-4.
 - c. TM 11-5805-790-12-5.
 - d. TM 11-5805-790-12-6.
7. In what TM would you find information about the Intelligent Line Interface (ILI)?
 - a. TM 11-5805-790-12-1.
 - b. TM 11-5805-790-12-2.
 - c. TM 11-5805-790-12-3.
 - d. TM 11-5805-790-12-4.
8. What TM and paragraph would you find the TRI-TAC line type technical characteristics?
 - a. TM 11-5805-790-12-1, paragraph 1-38.
 - b. TM 11-5805-790-12-1, paragraph 1-13.
 - c. TM 11-5805-790-12-6, paragraph 7-18.
 - d. TM 11-5805-790-12-6, paragraph 8-5.
9. On which side of the shelter is the maintenance VDT located?
 - a. Roadside/Rightside.
 - b. Curbside/Rightside.

- c. Roadside/Leftside.
 - d. Curbside/Leftside.
10. What is the maximum time limit for the battery back-up system to maintain power to critical ac/dc equipment?
- a. 15 minutes.
 - b. 30 minutes.
 - c. 60 minutes.
 - d. 120 minutes.
11. Name the telephones and their purpose in the message switch?
- _____
- _____
- _____
12. What is the difference between signals at the RED and BLACK patch panels?
- _____
- _____
- _____
13. List the five patch panel types.
- _____
- _____
- _____
14. What is the purpose of the central processor group (CPG)?
- _____
15. What is the purpose of the two 25-watt incandescent bulbs?
- _____
- _____
- _____
16. What is in rack position A65?
- _____
- _____
17. What is the principal purpose of the message switch?

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18. What is the maximum baud rate for TRI-TAC line type III?

- a. 150.
- b. 300.
- c. 4800.
- d. 16,000.

19. Describe AUTODIN Mode VI circuit mode.

20. What are the two types of cables used for signal interface?

PART TWO COMPLETED INSTRUCTOR INITIALS _____

SUMMARY:

You have just demonstrated your ability to locate and identify the AN/TYC-39A components.

END

POWER INITIALIZATION OF THE AN/TYC-39A

INTRODUCTION:

This practical exercise (PE) is divided into two parts. Part One will provide you with the time to practice performing power initialization of the AN/TYC-39A within 25 minutes. In Part Two you must correctly answer 7 out of 10 questions on the power group of the AN/TYC-39A within 30 minutes.

ITEMS YOU WILL NEED FOR THIS LESSON:

Check your work position and make sure you have the following items. If any items are missing, call for an instructor.

- a. TMs 11-5805-790-12-1 through 12-6.
- b. AN/TYC-39A.

THE LESSON STRATEGY:

Part One of the PE directs you in your practice of performing power initialization of the AN/TYC-39A within 25 minutes. Part Two directs you to answer 7 out of 10 questions in 30 minutes.

APPLICATION:

1. In Part One, perform power initialization within 25 minutes of the AN/TYC-39A using TM 11-5805-790-12-1 paragraph 2-25.
2. Your instructor will initial your PE after you correctly perform power initialization.
3. In Part Two, answer multiple choice questions by drawing a circle around the correct answer or fill in the blanks.
4. If it is not clear what you are required to do, ask your instructor for clarification.
5. When you have completed the practical exercise, ask your instructor to grade it for you.

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PART ONE: Using TM 11-5805-790-12, paragraph 2-25 to practice performing power initialization.

1. Perform system shutdown checks.
 - a. Were any circuit breakers left on? _____
 - b. Were any lights left on? _____
 - c. Were any of the devices left on? _____
2. Perform power initialization.
 - a. What does Phase Select "A" read? _____
 - b. What does Phase Select "B" read? _____
 - c. What does Phase Select "C" read? _____
 - d. What is the BUS VOLTAGE read? _____
 - e. What is the FLOAT CHARGE reading? _____
 - f. What is the DC CURRENT meter reading? _____

NOTE: Equalizing Charge will need to be done when in the field or unit but here at the school there are only fake batteries in the system.

Inst Initials_____

PART TWO: Answer 7 out of 10 questions in 30 minutes.

1. How many batteries are in the system?
 - a. Two.
 - b. Three.
 - c. Four.
 - d. Six.
 2. What is the bus voltage?
 - a. 25 to 27 VDC.
 - b. 26 to 28 VAC.
 - c. 115 VAC.
 - d. 28 AMPS.
 3. The _____ turns on the DC power subsystem and lights to show the DC power is on.
 4. Where are CB11 and CB12 located?
-
5. What indicates that the AC input power to the van is correct?
 - a. PHASE FAULT.
 - b. PHASE SELECT.
 - c. PHASE SEQUENCE.
 - d. POWER ALARM.
 6. What PS powers the central processor group?
 - a. PS 14,15.

- b. PS 4,5.
- c. PS 6,7.
- d. PS 11,12.

7. Identify the following acronyms.

- a. PPF _____
- b. CB _____
- c. ECU _____
- d. DC _____
- e. PS _____
- f. AC _____

8. When the shelter is occupied and not operating, but the door is closed; why is the door port opened?

9. During power initialization it instructs you to push in the Control AC ϕ A, ϕ B, ϕ C circuit breakers. What does the ϕ mean?

- a. AC power.
- b. Phase.
- c. Circuit breaker.
- d. DC power.

10. What should the current meter reading be for each setting of the current select switch?

- a. 28 volts.
- b. 26 volts.

c. 20 amps.

d. 25 amps.

SUMMARY:

You have just demonstrated your knowledge on power initialization and your ability to perform power initialization.

END

PERIPHERAL DEVICES

INTRODUCTION:

This practical exercise allows you to check and reinforce your understanding of the AN/TYC-39A peripheral devices and control and alarm panel (CAP). Your objective is to correctly perform identification of controls and indicators, load line printer unit (LPU) paper, install/remove floppy disk, install/remove storage device unit (SDU), and identify VDT screens within 45 minutes and correctly answer 25 of 35 questions within 2 hours.

ITEMS YOU WILL NEED FOR THIS EXERCISE:

- a. TM 11-5805-790-12-1, 12-2, 13-3, and 12-5.
- b. One double-sided/high density disk.
- c. Line printer unit (LPU) paper.
- d. Spare storage device unit (SDU).
- e. Online AN/TYC-39A.

THE LESSON STRATEGY:

This practical exercise directs you in your practice of identifying controls and indicators, identifying VDT screens, installing/removing an FDD, installing/removing SDU, and loading LPU paper within 45 minutes. You will also be given 2 hours to answer written questions.

APPLICATION:

1. In Part One, perform procedures listed within 45 minutes using TM 11-5805-790-12-1, 12-2, 13-3, and 12-5. Have your instructor initial your PE during your performance.
2. In Part Two, answer questions by filling in the blanks or circling the best answer.
3. When you have completed Part Two, turn in to your instructor for grading.
4. If it is not clear what you are required to do, ask your instructor for clarification.

PART ONE

1. Control and Alarm Panel (CAP)
Identify controls and indicators. Inst. Initials____
2. Line Printer Unit (LPU)
Identify controls and Indicators. Inst. Initials____
Load paper. Inst. Initials____
Perform print test. Inst. Initials____
3. Storage Device Facility
Identify controls and indicators Inst. Initials____
Install/Remove SDU Inst. Initials____
- 4 Dual Floppy Disk Drive (DFDD)
Identify controls and indicators Inst. Initials____
Install/Remove floppy disk Inst. Initials____
5. Visual Display Unit (VDT)
Identify controls and indicators Inst. Initials____
Identify Supervisory Screen Inst. Initials____
Identify Traffic Service Screen Inst. Initials____
Identify Off-Line/Standby Screen Inst. Initials____

PART TWO:

Answer these questions by filling in the blanks or circling the best answer.

1. Before loading paper, the LPU must be placed in what status?

2. What does a colored stripe on the LPU paper indicate?

3. What conditions would cause the LPU FLT red indicator to illuminate?

4. When does the PPR amber indicator illuminate?

5. What results from holding the FF/TST switch in the TST position?

6. How can you correct LPU light printing?

a. Install new ribbon.

- b. Install new paper.
- c. Adjust thick/thin control.
- d. Add toner.

7. When the FF/TST switch is held in the FF position, what position is the paper advanced to?

8. What is the high-speed LPU's print rate?

- a. 30 lines per minute.
- b. One page per minute.
- c. 300 lines per minute.
- d. 10 pages per minute.

9. What components does the VDT consist of?

10. What are the main operating functions of the VDTs?

11. The video display screen is a matrix consisting of what components?

12. What is meant when a portion of the screen is defined as a protected area?

13. How many lines are on the VDT screen?

14. When data entry is complete, what key is used to transmit data to the processor?

15. Which key is used to unlock the keyboard and clear all unprotected data on the screen?

- a. RELR.
- b. SCR CLR.
- c. ACKT.
- d. RESET.

16. What would cause the VDT XMIT RQST indicator to remain lit?

17. What key is pressed to acknowledge and turn off the VDT XMIT RQST indicator?

18. When the VDT is serving the off-line/standby or TSF function and the entire screen is filled with data, what blinking query is displayed in the system control partition?

19. Which key, when depressed, moves the cursor from the end of a line to the beginning of the same line?

20. Which key, when depressed, moves the cursor to the beginning of the next line?

21. What partition is the first line on the screen for all VDT functions and modes of operation?

22. Which key is depressed to delete characters from the cursor to end of line?

23. Which key is used to acknowledge channel alarms and individual channel status?

- a. FK1.
- b. FK2.
- c. FK3.
- d. FK4.

24. Which key is used to acknowledge system alarms and equipment status changes?

- a. FK1.
- b. FK2.
- c. FK3.
- d. FK4.

25. What partitions are on the supervisory display?

26. What partitions are on the traffic service display?

27. What partitions are on the off-line visual display?

28. What are the major differences between the supervisory display and the combined traffic service/supervisory display?

29. What type floppy disk is used in the message switch?

30. Explain the FDD write enable and write protect capabilities.

31. What is the SDU normal configuration?

- a. 2 control, 4 history.
- b. 1 control, 2 history
- c. 1 control, 5 history.
- d. 3 control, 3 history.

32. What device is the primary man/machine interface?

- a. CAP.
- b. VDT.
- c. SDU.
- d. FDD.

33. How many bytes of storage are contained in a SDU?

- a. 2 Kb.
- b. 208 Kb.
- c. 2 Mb.

d. 208 Mb.

34. What is the purpose of the graphic display area?

35. Identify the function keys names.

FK1 _____

FK2 _____

FK3 _____

FK4 _____

FK5 _____

FK6 _____

SECURITY ENHANCEMENTS

INTRODUCTION:

This practical exercise allows you to check and reinforce your understanding of the AN/TYC-39A security enhancements. Your objective is in part one is to correctly enter at least 7 of 10 security commands within 15 minutes and in part two to correctly answer at least 7 out of 10 questions within 30 minutes.

ITEMS YOU WILL NEED FOR THIS EXERCISE:

Check your work position and make sure that you have the following items. If any are missing, call your instructor.

- a. TM 11-5805-790-12-2.
- b. 260-ASIZ2/A01-LP5-PE
- c. AN/TYC-39A.

THE LESSON STRATEGY:

1. You will have 15 minutes for part one and 30 minutes in part 2 to complete this practical exercise. In part one perform the designated commands in the AN/TYC-39A. In part two mark your answers directly on the performance exercise.
2. When you have completed this performance exercise, turn it into your instructor for grading.
3. If there are no questions you may begin.

APPLICATION:

1. In part one use TM 11-5805-790-12-2 and the practical exercise sheet to perform the 10 security jobs/commands listed in the practical exercise.
2. In part two use TM 11-5805-790-12-2 and the practical exercise sheet to answer the 10 questions.
3. When you have completed the exercise have your instructor grade it for you.
4. If it is not clear what you are required to do, ask your instructor for clarification.

PART ONE:

Perform the following steps in the AN/TYC-39A.

1. Log on as the supervisor at the off-line/standby VDT.
2. Log off of the off-line/standby VDT.
3. Log on as the traffic service operator at the TSF VDT.
4. Log off of the TSF VDT.
5. Log on as the security officer at the SSF VDT.
6. At the SSF VDT perform the procedure to obtain an on-line printout of the passwords.
7. Perform an on-line AUDU command with the parameters given by the instructor.

Command _____

ID _____

Begin Day/Time _____

End Day/Time_____

8. Log off of the SSF VDT.
9. Log on as the supervisor at the SSF VDT.
10. Log off of the SSF VDT.

Remove all printouts, sign your name on them, and turn in to instructor.

PART TWO

Answer the following questions.

1. Describe the object reuse function.

2. What are the major responsibilities of the SSO?

3. What is the difference between discretionary access and mandatory access?

4. What off-line job is used by the SSO to print the functional password table?

5. What will result from three successive unsuccessful logon attempts?

6. What are the two types of audits and what are the differences between them?

7. When should the SSO use the off-line audit report function to generate an "on-line" audit report?

8. What command is used to generate an audit report for an individual user?

9. What does the message INVALID CONTROL SDU INFORMATION indicate?

10. What is entered at the next job prompt to activate the off-line audit report?

SUMMARY:

You have just demonstrated your ability to perform security jobs/commands and describe the AN/TYC-39A security enhancements.

END

UTILITIES AND CONFIGURATION PROCEDURES

INTRODUCTION:

This practical exercise (PE) is divided into two parts. In Part One your learning objective is to correctly enter 10 of 14 utility and configuration jobs/commands into the off-line and on-line processors within 30 minutes. In Part Two you must correctly answer 7 of 10 questions on the AN/TYC-39A within 30 minutes.

ITEMS YOU WILL NEED FOR THIS LESSON:

- a. AN/TYC-39A.
- b. One Double Sided, High Density Disk.
- c. One PLD Disk.
- d. TMs 11-5805-790-12-2, 12-3, & 12-5.

THE LESSON STRATEGY:

Part One of the PE directs you to utilize the TMs and the AN/TYC-39A enter commands into the off-line and on-line processor. In Part Two you are directed to answer 10 questions in 30 minutes. The primary aids you will use are TMs 11-5805-790-12-3 and 12-5.

APPLICATION:

1. In Part One, the reference TMs and the AN/TYC-39A to assist you in entering the listed commands. You will need to ask the instructor to identify the devices that you are to utilize for each command.
2. Your instructor will initial Part One of your PE after you correctly enter 10 of 14 commands.
3. In Part Two, answer either by filling in the blanks or by drawing a circle around the correct answer. You must correctly answer 7 of 10 questions to receive a GO on Part Two. When you have completed the practical exercise, ask your instructor to grade it for you.

PART ONE:

1. These commands will be entered while both processors are at the standby position. If they are not in the proper state, ask

your instructor for assistance. Your instructor will give you the device information required for completing each job.

OFF-LINE JOBS	FUNCTIONS	DEVICE(s)
FINL		_____
FTOF		_____
FCMP		_____
CONF:	CONN	_____
	DCON	_____
	SHOW	_____
	NONE	_____

2. These commands will be entered while one processor is on-line and the other is at the standby position. If they are not in the proper state, ask your instructor for assistance. Your instructor will give you the device information required for completing each command.

ON-LINE COMMANDS	DEVICE(s)	STATE OF DEVICE AFTER COMMAND IS ACKNOWLEDGED
CLOS	_____	_____
CONN	_____	_____
DCON	_____	_____
YAVL	_____	_____
NAVL	_____	_____
YIGN	_____	_____
NIGN	_____	_____

Remove printouts, sign your name on them, and turn in to instructors.

PART ONE COMPLETED INSTRUCTOR INITIALS _____

PART TWO:

FILL IN THE BLANK OR CIRCLE THE CORRECT ANSWER.

1. What function(s) can be performed with the VTOF procedures?

- a. Print contents of a DBD disk.
 - b. Generate a new DBD disk.
 - c. Update an existing DBD disk.
 - d. All of the above.
2. What device(s) can you DINL?
- a. Floppy Diskette.
 - b. Automatic Data Processor.
 - c. Storage Device Unit.
 - d. All of the above.
3. What does +D indicate on the SSF VDT equipment status summary?
- a. Cannot be used by either processor.
 - b. Not available for on-line processor, connected to off-line processor.
 - c. Available for use by on-line processor, disconnected from off-line processor.
 - d. +D is listed in channel status area; not equipment status summary.
4. Who is authorized to perform NAVL?
- a. Administrator and Security Officer.
 - b. Security Officer and Maintenance.
 - c. Administrator and Maintenance.
 - d. All User Types.
5. Who is authorized to perform CONF?
- a. Administrator and Security Officer.
 - b. Security Officer and Maintenance.
 - c. Administrator and Traffic Service Operator.
 - d. All User Types.

6. What rows of the SSF VDT contain the equipment status summary?

7. What command would be used to change a device's status from +D to +D#?

8. What devices can be connected to the off-line processor by using the configuration job CONN?

9. Utilizing the SSF VDT, what devices can be disconnected from the off-line processor? What is the command?

10. STATUS: VDT A - SU; VDT B - -D#; VDT C - TS. Bring VDT B to a status of TS (list commands in proper sequence).

PART TWO COMPLETED INSTRUCTOR INITIALS ____GO/NO-GO

SUMMARY: You have just demonstrated your ability to utilize utility and configuration jobs and commands.

PROCESSOR STARTUP PROCEDURES

INTRODUCTION:

This practical exercise (PE) allows you to check and reinforce your understanding of AN/TYC-39A processor startup procedures. Your objective is to perform processor startup within 30 minutes and correctly answer at least 14 out of 20 questions within 1 hour.

ITEMS YOU WILL NEED FOR THIS EXERCISE:

- a. AN/TYC-39A.
- b. TM 11-5805-790-12-1.
- c. TM 11-5805-790-12-3.
- d. TM 11-5805-790-12-5.

THE LESSON STRATEGY:

- 1. You will have 30 mins in part one and 1 hour in part two in which to complete this PE.
- 2. When you have completed this PE, turn it into your instructor.
- 3. If there are no questions you may begin.

APPLICATION:

- 1. You will have 30 minutes to complete part one in the AN/TYC-39A and 1 hour minutes to complete part two written portion of this practical exercise.
- 2. When you have completed this exercise, turn it into your instructor.
- 3. If there are no questions you may begin.

PART ONE:

Perform the following steps in the AN/TYC-39A.

1. Bring first processor to standby in accordance with TM 11-5803-790-12-1, para 2-27

INSTRUCTOR INITIALS_____

2. Bring second processor to standby in accordance with TM 11-5805-790-12-1, para 2-27

INSTRUCTOR INITIALS_____

3. Bring controlling processor to the online state. Ask instructor for procedure to use: MPLD or RECO.

INSTRUCTOR INITIALS_____

PART TWO:

Answer the following questions by filling in the blank or circling the best answer.

1. You are initializing a processor using VDT A and FDD B. What are the first and second program test thumbwheel settings on a processor?

2. The left PROGRAM TEST thumbwheel on a processor is used to configure which device(s)?

3. What equipment is required to run a manual recovery?

4. Which VDT is normally used as the supervisory display?

5. Define the meaning of each label on the following screen display message:

SVOP LPU SBY A 12

SVOP: _____

LPU: _____

SBY: _____

A: _____

12: _____

6. Which mode is the processor in when the screens message ddd
tttt NEXT JOB = ???? is displayed?

7. Which jobs can be used to bring processor to the on-line
state?

8. Which boot devices cannot be used for PLD?

9. Which command takes the processor out of stall cycle?

- a. RECO
- b. MSLD
- c. ABCY D.
- d. SCSD A.

10. Which device is specified with an octal device address of
45?

11. How do you exit the configuration mode?

12. Before putting channels in service after processor startup,
what must be done on the LKG patch panels?

13. What alarm(s) does the command ABCY D clear?

- a. ABV
- b. CFN
- c. STL.
- d. b & c.

14. What format is the year and daytime entered in the system?

- a. yymmdd.
- b. yy ddd tttt.
- c. ddmmyy.
- d. yy dddtttt.

15. What character must always terminate a password?

- a. .
- b. \$
- c. &
- d. #

16. During normal processor startup, when are devices entered in response to the following screen display message?

LIST DEVICES TO BE IGNORED

17. What is the correct operator response for the startup error message CAP ERROR - ITR?

18. What automatically-initiated job is used to reinitialize a message switch after a processor failure?

19. What job can be used to change the system date and which type(s) operator can perform it?

20. What is the purpose of using the SCSD command?

SUMMARY:

You have now demonstrated your knowledge and ability on processor startup procedures as they are used in the AN/TYC-39(A). With this knowledge and continued practice, your ability will increase and will help make you a better operator/supervisor.

END

COMSEC PROCEDURES

INTRODUCTION:

This practical exercise will provide you with the time to practice performing COMSEC start-up and initialization procedures. Your learning objective for this lesson is to correctly perform COMSEC start-up and initialization procedures within 20 minutes.

ITEMS YOU WILL NEED FOR THIS LESSON:

1. Operational AN/TYC-39(A).
2. Fill devices.
3. TM 11-5810-330-13.
4. TM 11-5810-331-13.
5. TM 11-5810-327-10.
6. TM 11-5810-328-13.
7. TM 11-5810-329-10.
8. TM 11-5810-326-13.
9. TM 11-5810-323-12.
10. TM 11-5810-309-10
11. TM 11-5810-292-13&P

THE LESSON STRATEGY:

This practical exercise directs you in your practice of performing COMSEC start-up and initialization procedures. The primary aids you will use are TM 11-5810-330-13, TM 11-5810-331-13, TM 11-5810-327-10, TM 11-5810-329-10, TM 11-5810-326-13, and TM 11-5810-309-10.

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APPLICATION:

COMSEC start-up and initialization procedures - Practice COMSEC start-up and initialization procedures as directed by your instructor from the following:

1. Turn on the five HGF-83 circuit breakers (CB1 through CB5)
INSTRUCTOR'S INITIAL: _____
2. Power on HGX-84s
INSTRUCTOR'S INITIAL: _____

3. Power on and initialize TSEC/KG-83. (Reference TM 11-5810-331-13, Section 3, paragraph 2-7.)

INSTRUCTOR'S INITIAL: _____

4. Load fill device. (Reference TM 11-5810-331-13, Section 3, paragraph 2-9.)

NOTE: Instructor will notify you which fill device to be loaded.

INSTRUCTOR'S INITIAL: _____

5. Load variables into the KG-82 via the HGX-82. (Reference TM 11-5810-326-13, Chapter 2, Section 3, paragraph 3-1.)

INSTRUCTOR'S INITIAL: _____

6. Load variables into the HGX-83. (Reference TM 11-5810-327-10, Section 3, paragraph 2-4.)

INSTRUCTOR'S INITIAL: _____

7. HGX-83 manually initiated commands. (Reference TM 11-5810-327-10, Section 3, paragraph 2-7.)

INSTRUCTOR'S INITIAL: _____

8. Load variables into KG-84. (Reference TM 11-5810-329-10, Section 3, paragraph 2-6 through 2-13.)

INSTRUCTOR'S INITIAL: _____

SUMMARY:

You have now proven that you have the ability to perform COMSEC start-up and initialization procedures. With this knowledge and continued practice operating the equipment, your ability will continue to increase, making you a better operator/supervisor of the message switch.

END

NORMAL SYSTEM SHUTDOWN

INTRODUCTION:

This practical exercise (PE) will provide you with the time to practice normal system shutdown procedures for the AN/TYC-29(A) message switch. Your learning objective for this lesson is to practice the procedures to perform normal system shutdown for the AN/TYC-39(A) message switch until you are able to correctly perform AN/TYC-39(A) normal system shutdown procedures within 10 minutes and to correctly answer at least 7 of 10 questions within 30 minutes.

ITEMS YOU WILL NEED FOR THIS LESSON:

- a. Operational AN/TYC-39(A).
- b. TM 11-5805-790-12-1, 3, 5.

THE LESSON STRATEGY:

This PE directs to answer written questions and to perform AN/TYC-39(A) normal system shutdown. The primary aid you will use is TM 11-5805-790-12-1.

Whenever pronouns or other references denotes gender appear in this document they are written to refer to either male or female unless otherwise stated.

PART ONE:

APPLICATION: Normal system shutdown procedures.

1. At SSF or COM VDT, enter status command STAT MSS to determine if messages are backlogged.
2. Observe that the line printer unit (LPU) will print out a Message Status Summary. Check the printout to see if any messages are backlogged.
3. Altroute backlogged messages. Ask instructor for commands to altroute as many backlogged messages as possible to your traffic service printer.
4. Perform disk dry-up allow command.
5. Take subscriber channels (Channels 001-052) that are in service to the out of service state.
6. Cancel disk dry-up command.
7. Perform another STAT MSS.
8. Check with instructor to see if any other software procedures need to be done. Remove all printouts, sign and turn in to instructor before powering down hardware.
9. Perform power shutdown.

INSTRUCTOR'S INITIALS: _____

PART TWO:

WRITTEN QUESTIONS. Answer the following questions by filling in the blank or circling the correct answer. When completed, turn in to your instructor for grading.

1. Which command excludes input traffic, but allows output traffic to be processed normally?

- a. RECO.
- b. STAT MSS.
- c. DRUP A.
- d. DRUP D.

2. Which command would take a group of subscriber channels out of service?

- a. COSR 007 010.
- b. COSR 007 008 009 0010.
- c. COSR ALL
- d. COSR 010 060.

3. Which command is used to determine backlogged message status?

4. Explain what DRUP A does to traffic?

5. When should the NOST command be used?

6. Where are CB11 and CB12 located?

7. What switches and circuit breakers on the power control panel are left in the on position?

8. What equipment is powered down first?

9. If you do not use COSR on subscriber channels what happens to these channels when the system is brought on-line using RECO?

10. What user type(s) should perform system software shutdowns?

SUMMARY:

You have demonstrated your knowledge on how answering written questions and performing normal system shutdown procedures. With this knowledge and continued practice, your ability will continue to increase, making you a better operator/supervisor.

END

MONITORING AN/TYC-39(A) SERVICE MESSAGES

INTRODUCTION:

This practical exercise will provide you with the time to interpret received service messages and determine necessary action. Your learning objective for this lesson is to correctly interpret received service messages and determine necessary action in three of four service messages within 20 minutes and to correctly answer 7 of 10 written questions.

ITEMS YOU WILL NEED FOR THIS LESSON:

- a. Operational AN/TYC-39(A).
- b. TM 11-5805-790-12-2.

THE LESSON STRATEGY:

This practical exercise directs you in your practice of interpreting received service messages and determining necessary action and in answering written questions. The primary aid you will use are TM 11-5805-790-12-2.

APPLICATION:

1. In Part One, perform service message procedures in the AN/TYC-39A within 20 minutes using TM 11-5805-790-12-2.
2. Your instructor will initial your PE during your performance.
3. In Part Two, answer questions by filling in the blanks or circling the answer.
4. When you have completed Part Two, ask your instructor to grade it for you.
5. If it is not clear what you are required to do, ask your instructor for clarification.

Whenever pronouns or other references denoting gender appear in this document, they are written to refer to either male or female unless otherwise indicated.

PART ONE:

Your instructor will direct to interpret and determine necessary action on service messages either at the line printer unit or a terminal.

1. Service Message One:

What is the: S___; Reference Para 4-22___

Was the service message automatically generated by the processor? _____

If a message is being serviced what was the routing OSRI of the original message? _____

Do you need to perform any actions as the traffic service operator in this switch? YES/NO. If yes, what do you need to do?_____

INSTRUCTOR INITIALS_____

2. Service Message Two:

What is the: S___; Reference Para 4-22___

Was the service message automatically generated by the processor? _____

If a message is being serviced what was the routing OSRI of the original message? _____

Do you need to perform any actions as the traffic service operator in this switch? YES/NO. If yes, what do you need to do?_____

INSTRUCTOR INITIALS_____

3. Service Message Three:

What is the: S___; Reference Para 4-22___

Was the service message automatically generated by the processor? _____

If a message is being serviced what was the routing OSRI of the original message? _____

Do you need to perform any actions as the traffic service operator in this switch? YES/NO. If yes, what do you need to do?_____

INSTRUCTOR INITIALS_____

4. Service Message Four:

What is the: S____; Reference Para 4-22_____

Was the service message automatically generated by the processor? _____

If a message is being serviced what was the routing OSRI of the original message? _____

Do you need to perform any actions as the traffic service operator in this switch? YES/NO. If yes, what do you need to do?_____

INSTRUCTOR INITIALS_____

PART TWO:

Use the following message to answer questions 1 through 5.

PATUZYVW RUTCCSD0025 0941239-UUUU--RUTCAKE.
ZNR UUUUU
BT
UNCLAS SVC
ZID

CHANNEL CHECK - LAST RECEIVED CSN WAS 000
#0025

NNNN

1. What is the Service Message ID number and TM reference paragraph?

S_____; reference paragraph_____

2. Why was the service message generated?

3. Who is this type of message addressed to?

4. What is the originating switch and service message designator?

5. Is any action required of the traffic service operator of the switch?

YES/NO

6. What happens to a message from a Mode II terminal if it is not accepted by the switch?

7. What service message is generated for "Invalid End of Message Sequence"?

S____

8. The AN/TYC-39A processor sent a service message indicating duplicate channel sequence numbers. What type of user does this message refer to?

Use the following information to answer questions 9 and 10: A message with a valid router originated from a directly connected AUTODIN ASC and an error was detected on input to AN/TYC-39A switch relay RUTC.

9. What happens to the original message?

10. Where is the service message sent?

Router_____

SUMMARY:

You have now proven that you have the ability to interpret received service messages and determine necessary action to the standard required for an entry level jobholder. With this knowledge and continued practice operating the AN/TYC-39(A), your ability will continue to increase, making you a better operator/supervisor of the AN/TYC-39(A) message switch.

END

TRAFFIC SERVICE ATTENDENT OPERATIONS

INTRODUCTION:

This practical exercise will provide you with the time to practice composing and transmitting messages, printing screens on the LPU, and performing TSDF operations. Your learning objectives for this lesson is to correctly compose and transmit messages, print VDT screen, and perform TSDF store, get, modify and delete operations within 30 minutes. You must also correctly answer 7 of 10 questions within 30 minutes.

ITEMS YOU WILL NEED FOR THIS LESSON:

- a. Operational AN/TYC-39(A).
- b. TM 11-5808-790-12-2.

THE LESSON STRATEGY:

This practical exercise directs you in your practice of composing and transmitting messages, printing VDT screen, and performing TSDF store, get, modify, and delete operations within 30 minutes. You will also answer 10 questions. The primary aid you will use are TM 11-5805-790-12-2.

APPLICATION:

1. In Part One, perform traffic service procedures within 30 minutes using TM 11-5805-790-12-2.
2. Your instructor will initial your PE during your performance.
3. In Part Two, answer questions by filling in the blanks.
4. If it is not clear what you are required to do, ask your instructor for clarification.
5. When you have completed Part Two, ask your instructor to grade it for you.

Whenever pronouns or other references denoting gender appear in this document, they are written to refer to either male or female unless otherwise indicated.

PART ONE:

In this portion of the practical exercise only use routine precedence and unclassified classification for composing messages. Only create one page TSDFs. Use TM 11-5805-790-12 to complete the procedures. Ask your instructor for the routers to be used in the message headers.

1. Compose and transmit two messages into the system.

INSTRUCTORS INITIALS_____

2. Compose and store two messages in two separate traffic service data files (TSDF). Indicate the numbers of your files below

TSDF numbers_____

INSTRUCTORS INITIALS_____

3. Modify your first TSDF to include the statement: "This is a modified file from (insert your name)."

INSTRUCTORS INITIALS_____

4. Get your second TSDF and then print it on the LPU.

INSTRUCTORS INITIALS_____

5. Delete your second TSDF.

INSTRUCTORS INITIALS_____

PART TWO:

Answer these questions by filling in the blanks.

1. What rows are used to compose a message?

2. When can VDT-SYS be entered?

3. What information can be in the EXP field?

4. What precedences may be used in an abbreviated header?

5. What LMFs are allowed when composing a message?

6. Explain the VDT-LPU mode.

7. Where are TSDFs stored?

8. Why is the first screen of an entry displayed when performing TSD-DEL?

9. What key do you use to clear screens between transmissions?

10. Explain the system response field INP=ACK and INP=NAK.

ON-LINE PILOT EDIT OF A MESSAGE

INTRODUCTION:

This practical exercise will provide you with the time to practice performing on-line pilot header edit procedures. You will also answer written questions. Your learning objective for this lesson is to perform correctly 3 of 4 editing procedures within 20 minutes. You must also correctly answer 7 of 10 written questions.

ITEMS YOU WILL NEED FOR THIS LESSON:

1. Operational AN/TYC-39A.
2. TM 11-5805-790-12-2.

THE LESSON STRATEGY:

This practical exercise directs you in your practice of performing pilot header editing procedures. The primary aids you will use are TM 11-5805-790-12-2.

APPLICATION:

The editing of these messages will require coordination with your switch supervisor. You will act upon the decision passed down from the supervisory element to resolve the situation. You instructor will be this element in this exercise. Using TM 11-5805-790-12-2, you will perform the following procedures.

PART ONE:

1. Message One:

a. Verify EDTQ has messages to be edited. EDTQ should contain four messages; if not, see your supervisor for further instructions.

b. Since EDTQ has messages in queue, you need to enter the AUTO mode at the traffic service video display terminal (VDT) to edit the four messages.

c. You will examine the VDT display of the first message in the edit queue and perform pilot header using information in the MCB to complete abbreviated header. Transmit this message when completed and DISM if INP=ACK. If you receive a INP=NAK, see switch supervisor for decision to DISM or &CAN.

2. Message Two:

a. If you have finished with message one, message two should be on the screen.

b. Ask your switch supervisor for one of the possible decisions:

Option 1: Dismiss the message and send a service message to notify originator that you were unable to retransmit message.

Option 2: Edit the message by pilot header using information from MCB and retransmit the message. DISM if INP=ACK. If INP=NAK, use \$CAN, make corrections, transmit and DISM.

Option 3: Change the DESTINATION RI by pilot header to a RI provided by the supervisor, transmit, and DISM if INP=ACK. If INP=NAK, use \$CAN, make corrections, transmit and DISM.

3. Message Three:

a. If you have finished with message two, message three should be on the screen.

b. Ask your switch supervisor for one of the possible decisions:

Option 1: Dismiss the message and send a service message to notify originator that you were unable to retransmit message.

Option 2: Edit the message by pilot header using information from MCB and retransmit the message. DISM if INP=ACK. If INP=NAK, use \$CAN, make corrections, transmit and DISM.

Option 3: Change the DESTINATION RI by pilot header to a RI provided by the supervisor, transmit, and DISM if INP=ACK. If INP=NAK, use \$CAN, make corrections, transmit and DISM.

4. Message 4:

a. You will edit the fourth message using the following incorrect abbreviated header: PIOSZYVW RUTCCSA. Transmit this message. You will receive a INP=NAK with a reason code. What is the reason code?

Reason Code _____

b. Use the VDT directive &CAN to bring the message back into the system for editing. Make corrections on abbreviated header to send message to your switch's traffic service position RI. DISM when you have received INP=ACK.

c. Completing this message should have cleared edit queue field to 0. You should now have a system log on your screen. Change to the VDT=LPU mode and print this log screen. Remember to position cursor after the last character to be printed.

Remove printout, sign, and turn in to instructor for evaluation.

INSTRUCTOR INITIALS_____

PART TWO

WRITTEN QUESTIONS:

1. What rows are used for editing message headers?

2. Which function key is not used when in the traffic service modes?

a. ACKT

b. DISM

c. MODE

d. NO

3. What does MX in the field 2, row 2 indicate?

4. What does the reason code INV RI indicate?

5. True/False. When editing a message LMF AC can be used.
Ref: Pg 4-14, para 4-9, 12-2 man.

6. What does P/S represent when it follows the reason code.

7. When editing a message, where should you position your cursor before transmitting?

8. List the traffic service VDT operating modes for field 4, row 1.

9. What row & field indicates the last valid directive acknowledged.

10. What reason code indicates "Message security is not compatible with message medium."

SUMMARY:

You have now proven that you have the ability to perform message editing procedures. With this knowledge and continued practice operating the equipment, your ability will continue to increase, making you a better operator and supervisor of the AN/TYC-39(A) message switch.

END